

5 What is claimed is:

1. An aqueous, energy curable, printing ink composition comprising:
  - (i) a metallic colorant; and
  - (ii) an energy curable vehicle made of a homogenous, aqueous, composition10 of:
  - (a) water; (b) an ethylenically unsaturated oligomer; and (c) an ethylenically-unsaturated resin containing neutralized acidic or basic functional groups.
2. The composition according to Claim 1 further comprising a photoinitiator.
- 15 3. The energy curable, aqueous, printing ink composition of Claim 1 wherein the amount of water is greater than 25 wt. %.
4. The energy curable, aqueous, printing ink composition of Claim 1 wherein the
- 20 ethylenically unsaturated resin containing neutralized acidic or basic functional groups is less than 60 wt. %.
5. The energy curable, aqueous, printing ink composition of Claim 4 wherein the
- 25 amount of water is greater than 25 wt. %.
6. An aqueous, energy curable, printing ink composition comprising:
  - (i) a metallic colorant;
  - (ii) an energy curable vehicle made of a homogeneous, aqueous, compositionof: (a) water; and (b) an ethylenically unsaturated resin containing
- 30 neutralized acidic or basic functional groups.
7. The composition according to Claim 5 further comprising a photoinitiator.
8. The composition of Claim 6 wherein the amount of water is greater than 26 wt. %.
- 35 9. A method for printing using an energy curable, water resistant, printing ink comprising:
  - (i) applying to a substrate an energy curable composition having a

- 5           (a) metallic colorant ;  
          (b) an energy curable liquid vehicle made of a homogenous, aqueous  
          composition of ethylenically unsaturated oligomer; an ethylenically-  
          unsaturated resin containing neutralized acidic or basic functional groups;  
          and water,  
10           (c) and optionally containing a photoinitiator; and  
          (ii) subjecting the substrate to actinic radiation thereby forming an energy cured,  
          water resistant, printed product.
10.   The method of Claim 9 wherein the oligomer is a mixture of a partially water  
15       soluble oligomer and a water insoluble oligomer.
11.   The method of Claim 9 wherein the water is greater than 25 wt.%.
12.   The method of Claim 9 wherein the ethylenically unsaturated resin containing  
20       neutralized acidic or basic functional groups is less than 60 wt.%.
13.   The method of Claim 12 wherein water is greater than 25 wt.%.
14.   A method for printing using an energy curable, water resistant, printing ink  
25       comprising:  
          (i)     applying to a substrate an energy curable composition having a  
                  (a) metallic colorant ;  
                  (b) energy curable liquid vehicle made of a homogenous, aqueous,  
                  composition of ethylenically unsaturated resin containing  
30               neutralized acidic or basic functional groups; and water,  
                  (c) and optionally containing a photoinitiator; and  
          (ii)    subjecting the substrate to actinic radiation thereby forming an energy  
                  cured, water resistant, printed product.
- 35   15.   The method of Claim 14 wherein the amount of water is greater than 26 wt.%.